IN THE CLAIMS

1. **(Original)** A method for determining the position of a feature within the scan that is effective at the operating frequency of the scan and using a limited bandwidth video signal, comprising the steps of:

determining the reference feature to be an edge over which the video signal changes abruptly from one level to a higher or lower level;

determining whether the beam is only turned on over a short region of the scan; and

representing the degree of overlap between the beam on portion of the scan and the higher video level part of the feature as the total video signal accumulated in that scan.

2. **(Previously Presented)** A method for determining the position of a feature within the scan that is effective at the operating frequency of the scan and using a limited bandwidth video signal, comprising the steps of:

using a sample having a black to white video transition as a reference feature

unblanking the beam for a short period;

advancing the unblanked period along the line by a small increment each succeeding scan;

sampling the amplifier output by an analog-to-digital converter at a time delay following the unblank-blank period determined by the video amplifier bandwidth;

arranging the successive samples for giving a video profile representative of the video profile of a slow scan with a wide beam; and

mathematically processing the representative video profile to yield the position of the video edge with respect to the scan.

3. **(Original)** A method of electronically measuring parameters of a beam in a raster scan system comprising the steps of:

(a) Choosing a predetermined plurality of pixels of said raster scan to be calibrated;

(b) moving at least one feature at the image plane having video contrast adjacent to the landing point of said plurality of pixels;

(c) strobing said beam for said plurality of pixels within said raster scan;

(d) incrementally moving said plurality of pixels within said raster scan toward said at least one video contrast feature;

(e) integrating the signal resulting from said plurality of pixels as said plurality of pixels move towards said at least one video contrast feature; and

(f) repeating steps (c) through (e) until said plurality of pixels crosses said at least one video contrast feature.

4. **(Previously Presented)** In an electron beam equipment, a method for determining the dimensions of the scan of the electron beam by identifying a feature on the sample and the position of the feature within the scan for calibrating the scan amplitude, said method being effective at the operating frequency of the electron beam scan, but using a limited bandwidth video signal, comprising the steps of:

determining an edge over which the video signal changes from one level to a higher or lower level as a reference feature;

turning on the electron beam over only a short region of the electron beam scan; and

representing as the total video signal accumulated the degree of overlap between the beam on portion of the scan and the higher video level part of the feature.

5. **(Previously Presented)** The method of Claim 1, further wherein the steps include:

using the high to low, low to high video transition as a reference feature;

unblanking the electron beam for a short period during the scan;

advancing the unblank-blanked period along the line by a small increment each succeeding scan;

sampling the video amplifier output using an analog-to-digital converter at a time delay following the unblank-blanked period, said time delay determined by the video amplifier bandwidth; and

a means of stepping the unblank-blanked period along the line by sub pixel increments by inserting a programmable delay between the blanking pulse generator and the blanker itself.